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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,902	07/24/2001	Franz Danekas	Q63847	3369

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EXAMINER

MULLIS, JEFFREY C

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 02/04/2002

6

Please find below and/or attached an Office communication concerning this application or proceeding.

TD-6

Office Action Summary

Application No.
09/910,902

Applicant(s)
Danekas et al.

Examiner
First Last

Art Unit
1234



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jul 24, 2001
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4 20) ☐ Other: _____

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Claims 1-9 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

It is not clear what applicants intend by the term "polyethylene copolymer" in that a copolymer of polyethylene would be a block copolymer, i.e. contain blocks of polyethylene copolymerized with other blocks. However applicants' specification gives no indication that block copolymers are intended. If applicants intend that the "polyethylene copolymer" is a copolymer of ethylene and some other monomer, then applicants may overcome the above rejection by replacing the term "polyethylene copolymer" with the word "ethylene copolymer". With regard to claim 6, the term "copolymer content of more than 30%" is unclear given applicants' terminology in that this phrase might alternatively be interpreted as actual copolymer content or may also be interpreted as comonomer content. Claim 7 is similarly unclear.

The term "insulation extruder" is not art recognized and is therefore unclear.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section

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102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5, 8 and 9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Glander et al. (USP 4,289,860).

Glander et al. disclose a process in which a granular polyethylene is mixed with VTMS and extruded to form a cable coating and then cross-linked with water. Note Example III in column 12 in this regard. Note that 5-20 parts of a copolymer may be added at the paragraph bridging columns 6 and 7. Although the initial compounding takes place at only 95°C, instant claim 4 recites no lower limit of "grafting" and even an extremely minor amount of grafting during the compounding step of Glander et al. embraces the process of claim 4.

No example uses the EP or EPDM copolymer in the patent although patentees' specification clearly discloses that these materials, embraced by applicants' copolymer may be added. Furthermore, patentees do not appear to disclose the use of an extruder during compounding as appears to be required by applicants' claim 9. However it was widely known at the time of the invention to compound macromolecular materials and additives using an extruder.

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It would have been obvious to a practitioner having ordinary skill in the art at the time of the invention to add EP or EPDM in the process of patentees since patentees specifically disclose that this may be done to reduce bubble formation and in the expectation of reducing bubble formation absent any showing of surprising or unexpected results. With regard to instant claim 9, use of an extruder to compound would have been obvious to a practitioner having ordinary skill in the art at the time of the invention since it was widely known to compound ingredients using extruder at the time of the invention and in the expectation of simplifying the procedure of patentees since only one apparatus would be needed in such a case and absent any showing of surprising or unexpected results.

Claims 1-5, 8 and 9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Furrer et al. (USP 5,112,919).

Furrer et al. disclose a process in which a "granular" base polymer such as polyethylene (column 3 lines 15-34) is compounded with a carrier such as EVA (column 4 lines 40-46) at the level of 0.7-7% (column 5 lines 23-30). Compounding takes place in an extruder at column 7 lines 15-29. The material may be extruded onto a cable in Example 10.

No specific examples showing applicants' combination of polyethylene and ethylene copolymer such as patentees' EVA are disclosed. However it would have been obvious to a practitioner

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having ordinary skill in the art at the time of the invention to choose applicants' embodiments from those of patentees in the expectation of adequate results absent any showing of surprising or unexpected results.

Claims 1-9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nisiyama et al. (JP 04293945) in view of Furrer et al., cited above.

Nisiyama et al. disclose a process in which a polyethylene homopolymer is compounded with a hydrolyzable cross-linking silane and ethylene copolymer such as ethylene acrylic acid. The material is disclosed to be useful to coat a power cable.

The patent does not disclose that the polyethylene is a granulate nor are there any specific examples where applicants' copolymer concentrations are used.

It would have been obvious to a practitioner having ordinary skill in the art at the time of the invention to use the granulate of Furrer et al. as the polyethylene in the process of the primary reference since a granulate would have been recognized by those of ordinary skill in the art as being absorptive and motivated by the need for physical form of polymer which would absorb the liquid components of patentees and in the expectation of facilitating reaction of patentees absent any showing of surprising or unexpected results. With regard to the use of applicants' concentrations, these are broadly disclosed in

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the specification of the primary reference and overlap with applicants' concentrations. Therefore use of applicants' concentrations would have been obvious to a practitioner having ordinary skill in the art at the time of the invention in the expectation of adequate results absent any showing of surprising or unexpected results.

With regard to applicants' International Search Report, it is the position of the Examiner that the "X" references on applicants' International Search Report do not anticipate the claims or render them obvious since there is no teaching or suggestion of contacting a polyethylene granulate with a liquid silane containing cross-linking agent.

Any inquiry concerning this communication should be directed to Jeffrey Mullis at telephone number (703) 308-2820.

J. Mullis:cdc

February 1, 2002

Jeffrey Mullis
Primary Examiner
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A large, stylized handwritten signature in black ink, likely belonging to Jeffrey Mullis, is written over the printed name and title.